

# SYLLABUS

## SYST 489 - Senior Seminar

### Fall 2011

**Professor:** Dr. Peggy Brouse

**Assignment Submission:** Blackboard usage is required in the class; instructions are below.

**Work Phone:** (703) 993-1502 (with voice mail)

**FAX:** (703) 993-1706

**E-mail:** pbrouse@gmu.edu

**Office:** GMU: Engineering Building - Room 2215

**Office Hours:** Monday 11:00 a.m. – 1:00 p.m. and by appointment

**Course Description:** This course is designed to introduce the students to several important topics in systems engineering, provide additional experience to the students in writing and giving presentations, and obtain feedback on the curriculum for the B.S. in Systems Engineering. Several lectures will be devoted to ethics in systems engineering. Writing and making presentations for systems engineering will also be covered early in the semester. Lecture series presenters will present material that is not part of the required course load to expand the horizons of the students. Each student will write a short paper on each of these presentations. In addition, students will work in teams to critique and redesign the curriculum in Systems Engineering. Each group will deliver a written product and provide at least one briefing to the class. The best critique and redesign will be presented to the faculty.

**Course Hours:** Monday and Wednesday 9:00 - 10:15 am in Nguyen Engineering Building 1110

- Text:**
1. Introduction to Engineering Communication, 2d edition (2009), Hillary Hart. Pearson Prentice Hall. ISBN 978-0-136044208
  2. Engineering Ethics: An Industrial Perspective (2006), Gail Baura. Academic Press ISBN 978-0-12-088531-2

**Grades:** On following pages

Topic	Lecture	Deliverables
Technical Writing	Hart – Chapter 1 – Engineering and Communication [22] Hart – Chapter 2 – Discovering Ideas and Facts [54] Hart – Chapter 3- Organizing Ideas and Facts: [27] Hart – Chapter 4 – Writing: Taking Control [51] Hart – Chapter 5 – Displaying Data in Written Documents [30]	<b>Individual:</b> Long paper on bleeding edge technology (20 pages) in IEEE format
Giving Presentations	Hart – Chapter 7 – Do I Really Have to Stand Up and Talk in Front of All Those People [23]	<b>Individual:</b> Bleeding Edge Annotated Outline Presentation Bleeding Edge Final Presentation  <b>Group:</b> Ethics Case Presentation Curriculum Review Draft and Final Presentation
Ethics	Ethics Lecture	<b>Individual:</b> Case write-ups (every case except the one your group presents)  <b>Group:</b> Team presentation and discussion lead. Team paper.
Curriculum Review		<b>Group:</b> Determine subject of curriculum review Brief subject Interview professors, students Draft review Final review In-class brief Brief faculty
Technology Review	Attend speaker series lecture	<b>Individual:</b> Short paper on lecture attended (3 pages)
Professionalism		<b>Individual:</b> Evaluated by instructor

## Exact Grade Breakdown

	<b>Individual</b>	
	Ethics - Writeups (5 at 2% each)	10%
	Bleeding Edge Annotated Outline Presentation	5%
	Bleeding Edge Paper Draft	5%
	Bleeding Edge Paper	10%
	Bleeding Edge Final Presentation	5%
	Seminar Review Paper	10%
	Professionalism	10%
	<b>Group</b>	
	Ethics Case Presentation	10%
	Ethics Case paper	10%
	Curriculum Review Subject	5%
	Curriculum Review Draft Presentation/Paper (2.5% each)	5%
	Curriculum Review Final Presentation/Paper (7.5% each)	15%

### Writing Intensive Statement

This course fulfills all/in part the Writing-Intensive requirement in the Systems Engineering undergraduate major. It does so through the five ethic write-ups, bleeding edge paper outline, bleeding edge draft paper, bleeding edge final paper and the seminar review paper. The bleeding edge paper will be completed through a draft/feedback/revision process. The due date for each is below; I will provide comments on each.

### Disabilities Statement

If you are a student with a disability and you need academic accommodations, please see me and contact the Disability Resource Center (DRC) at 993-2474. All academic accommodations must be arranged through the DRC

## CLASS SCHEDULE

Week 1>	29/31 August	<ul style="list-style-type: none"> <li>◆ Background; Introductions; Honor Code</li> <li>◆ Group assignments, In-class writing assignment</li> <li>◆ Present past curriculum review subjects</li> <li>◆ Due: IN - Information Sheet</li> </ul>
Week 2>	5 September 7 September	<ul style="list-style-type: none"> <li>◆ Labor Day – NO CLASS</li> <li>◆ Writing Center Roadshow presentation – Kathy Goodkin</li> <li>◆ Blackboard demo</li> </ul>
Week 3>	12/14 September	<ul style="list-style-type: none"> <li>◆ University Career Services 10 minute presentation – Charlotte Strauss</li> <li>◆ Discussion of Problem Statement and Need Statement</li> <li>◆ Lecture Hart, Chapter 1</li> <li>◆ Lecture: EVMS</li> <li>◆ Review Research Paper Info sheet</li> <li>◆ SEOR Goals for Written Communication</li> <li>◆ WAC Review Rubric</li> <li>◆ Seminar Review Paper info sheet</li> <li>◆ Ethics Case Paper info sheet</li> </ul>
Week 4>	19 September 21 September	<ul style="list-style-type: none"> <li>◆ Group work day</li> <li>◆ Group: 5 min presentation of curriculum review subject</li> <li>◆ Due: G- Curriculum Review Subject - Presentation G - Curriculum Review Subject - Annotated Outline</li> </ul>
Week 5>	26/28 September	<ul style="list-style-type: none"> <li>◆ Lecture Hart</li> <li>◆ Due: G – Ethics – 3 Choices of Group Due</li> </ul>
Week 6>	3/5 October	<ul style="list-style-type: none"> <li>◆ Review ABET Objectives and Outcomes</li> <li>◆ Lecture Hart</li> </ul>
Week 7>	11/12 October	<ul style="list-style-type: none"> <li>◆ NO CLASS ON MONDAY; MONDAY CLASSES MEET ON TUESDAY</li> <li>◆ Lecture Hart</li> </ul>
Week 8>	17/19 October	<ul style="list-style-type: none"> <li>◆ Individual: 5 min presentations on bleeding edge paper (annotated outline)</li> <li>◆ Due: IN - Bleeding Edge Topic - Annotated Outline - Presentation IN - Bleeding Edge Topic - Annotated Outline - Paper</li> </ul>
Week 9>	24 October 26 October	<ul style="list-style-type: none"> <li>◆ Lecture: Ethics</li> <li>◆ Group work day on Ethics Cases and final paper</li> </ul>

Week 10>	31 October  2 November	<ul style="list-style-type: none"> <li>◆ Group Presentation: Ethics Case 1</li> <li>◆ Due: G - Ethics Case Group 1 Materials IN - Ethics Writeup 1</li> <li>◆ Group Presentation: Ethics Case 2</li> <li>◆ Due - G - Ethics Case Group 2 Materials IN - Ethics Writeup 2 IN - Bleeding Edge Paper Draft - Paper</li> </ul>
Week 11>	7 November 9 November	<ul style="list-style-type: none"> <li>◆ Group work day on Curriculum Review</li> <li>◆ Group Presentation: Ethics Case 3</li> <li>◆ Due - G - Ethics Case Group 3 Materials IN - Ethics Writeup 3</li> </ul>
Week 12>	14 November  16 November	<ul style="list-style-type: none"> <li>◆ Group Presentation: Ethics Case 4</li> <li>◆ Due - G - Ethics Case Group 4 Materials IN - Ethics Writeup 4</li> <li>◆ Group Presentation: Ethics Case 5</li> <li>◆ Due - G - Ethics Case Group 5 Materials IN - Ethics Writeup 5</li> </ul>
Week 13>	21 November  23 November	<ul style="list-style-type: none"> <li>◆ Groups (some Monday, some Wednesday): 15 min presentation of curriculum review draft</li> <li>◆ Due: G - Curriculum Review Draft – Presentation G - Curriculum Review Draft - Paper</li> </ul>
Week 14>	28 November  30 November	<ul style="list-style-type: none"> <li>◆ Group: Presentation to faculty on curriculum review (everyone attends)&gt; will be coordinated with SYST490 presentations to faculty</li> <li>◆ Due: G - Curriculum Review Final - Presentation G - Curriculum Review Final - Paper</li> </ul>
Week 15>	5 December  7 December	<ul style="list-style-type: none"> <li>◆ Individual (some Monday, some Wednesday): Presentations of bleeding edge paper</li> <li>Due: IN - Individual Evaluation of Team Members IN - Individual Seminar Review Paper IN - Bleeding Edge Final - Presentation IN - Bleeding Edge Final - Paper</li> </ul>

## How to Access Blackboard?

- Go to <https://mymasonportal.gmu.edu>
- Login to myMason
  - ◆ Enter ID and password

Students need a Mason ID and password to login. Their Mason ID is their Mason mail user name (e.g. the Blackboard ID for [jdoe@gmu.edu](mailto:jdoe@gmu.edu) would be jdoe)

If you do not know your Mason mail user name, go to <http://mail.gmu.edu> and click on “Activating My Account” icon, follow the steps.

- Click on the Course tab
- Choose this course from the 9.1 Course List
- All assignments have due dates and submissions after the due date/time will not be possible, since Blackboard will automatically block “submit my homework” option.
- From time to time, Blackboard works too slowly. Especially from a dial-up internet connection, Blackboard access may not be so efficient all the time; students are encouraged to submit their work earlier than the deadline.
- If you experience any problem while accessing/using Blackboard, please. send an e-mail to Dr. Brouse, [pbrouse@gmu.edu](mailto:pbrouse@gmu.edu)